VOL. 25 NO. 39 September 26, 1975

Cooperative Economic Insect Report

Issued by
PLANT PROTECTION AND QUARANTINE PROGRAMS
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
U.S.DEPARTMENT OF AGRICULTURE

ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
NEW PEST DETECTION AND SURVEY STAFF

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearing house and does not assume responsibility for accuracy of the material.

All reports and inquiries pertaining to this release, including the mailing list, should be sent to:

CEIR
New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
United States Department of Agriculture
Federal Center Building
Hyattsville, Maryland 20782

Volume 25 September 26, 1975 Number 39

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

CORN EARWORM damage in parts of Oklahoma, Kansas, Ohio, and North Carolina. (p. 779).

FALL ARMYWORM damage heavy to corn and sorghum in North Carolina and Tennessee. (p. 779).

VELVETBEAN CATERPILLAR a major pest of soybeans and peanuts in Alabama and of soybeans in Mississippi. Larvae of other NOCTUID MOTHS also defoliated soybeans in these and other States. (pp. 780-781).

BOLL WEEVIL continued heavy in Rolling Plains of Texas and in Alabama. Percentage of punctured squares increased in Oklahoma and Mississippi. (p. 782).

BOLLWORM and TOBACCO BUDWORM increased in Trans-Pecos area of Texas; latter species predominant in Arkansas and Alabama. (p. 782).

First SCREWWORM cases in Oklahoma for season. (p. 784).

Detection

YELLOWFEVER MOSQUITO found in Arkansas for first time in 10 years. (p. 784).

For new county records, see page 785.

Reports in this issue are for the week ending September 19 unless otherwise indicated.

CONTENTS

Special Insects of Regional Significance.....779

Insects Affecting

Corn, Sorghum, Sugarcane..779
Turf, Pastures, Rangeland.780
Forage Legumes.....780
Soybeans.....780
Peanuts.....781
Cotton.....782
Deciduous Fruits and Nuts..782
Ornamentals.....783
Forest and Shade Trees.....783
Man and Animals.....784
Households and Structures..784

Federal and State Plant Protection Programs.....784
Detection.....785
Hawaii Insect Report.....786
Light Trap Collections.....787

WEATHER OF THE WEEK ENDING SEPTEMBER 21

Reprinted from Weekly Weather and Crop Bulletin supplied by National Weather Service, NOAA.

HIGHLIGHTS: Much of the credit for the week's weather goes to a new cold air mass that delivered cool temperatures and light rains to most of the Nation. Unseasonably warm dry weather, though, gripped the Pacific Northwest and readings in the 80's ran along the gulf and Atlantic coasts. Associated with the front ahead of colder air, showers and thundershowers were scattered throughout the Great Plains and Mississippi and Ohio Valleys. Locally heavy rains drenched parts of the Southwest and south-central Plains.

PRECIPITATION AND TEMPERATURE: Before the past weekend's cold air mass moved out to the sea on Monday, it dropped a few more record lows from the southern Atlantic States north into New England: Albany, New York--33 degrees, Warwick, Rhode Island--38 degrees, Raleigh, North Carolina--45 degrees, and Richmond, Virginia--44 degrees. Daytime temperatures in the 60's held on across most of the Nation slipping into the 50's where it was cloudy but warming into the 70's and 80's under sunny skies. Desert Southwest claimed only 90's. Notable precipitation turned up as a line of thunderstorms from central Texas into Arkansas. Scattered thundershowers occurred along the gulf coast from Louisiana through Florida and up the Atlantic coast to North Carolina. Except for the Pacific Northwest, clear skies opened over the western half of the country and reached into the northern Plains and Upper Great Lakes region. Tuesday, tropical storm Eloise came to life in the south Atlantic. Its heavy rains created flood problems in the Virgin Islands and Puerto Rico where more than 10 inches fell in only 12 hours. On the continent, locally heavy rains in the southwest took the form of scattered thunderstorms through the mountains and deserts of southern Nevada and southwest Arizona. Mild temperatures spread across the Nation except in the Desert Southwest where a few readings topped 105 degrees. Wednesday's morning storm activity quieted in the Southwest but picked up in parts of South Dakota and Louisiana. Lightning that accompanied heavy thunderstorms in South Dakota sparked four grass fires.

Weather of the week continued on page 788.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

CORN EARWORM (Heliothis zea) - TEXAS - Light to moderate on alfalfa in Trans-Pecos area. Moderate feeding in sunflower seed heads in Pecos and Reeves Counties. (Neeb). OKLAHOMA - Ranged 0-5 per row foot on soybeans in Muskogee, Haskell, Sequoyah, and Le Flore Counties. Heavier in Wagoner County; totally destroyed areas of some fields. Averaged less than one per row foot on Marshall County peanuts. (Okla. Coop. Sur.). KANSAS - Larvae averaged 3 per grain sorghum head in 95 percent of heads in Bourbon County field; up to 7 larvae in individual heads. Larvae one per head in second field. (Bell). OHIO - Moderate in late-maturing field of corn in Clark County. Damaged half of ears. Most larvae full grown. Generally more damaging to sweet than field corn. (Lewis). NORTH CAROLINA - Larval damage noted on 25 acres of dug sweetpotatoes in Nash County September 8-12. Larvae heavy on foliage with little damage. Larvae continued to damage harvested sweetpotatoes in field, field crates, and packing houses. (Sorenson). VIRGINIA - Larvae averaged 3.4 per 30 row feet of soybeans in 815 acres (22 fields) in Charles City County. Averaged 5 per 30 row feet in 810 acres (34 fields) in Northumberland and Lancaster Counties. No treatments needed. (Allen).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - NEBRASKA - Breakage above and below the ear in Antelope and Pierce Counties week ending September 12 averaged 10 percent in late-maturing fields; up to 40 percent of plants broken in scattered areas within fields. (Koinzan). Current larvae (24 percent in second or third instars) averaged 10.3 per plant on all corn. About 36 percent of plants broken above the ear and 2 percent below the ear. No ears on ground at this time. (Witkowski). SOUTH DAKOTA - Stalks broken above the ear ranged 19-30 percent in Lincoln, Turner, Clay, and Union Counties. Larvae 3.60-6.24 per plant. (Walgenbach). OHIO - Average of 35 larvae per 100 plants on 37.5 percent of corn plants. (Lewis). NORTH CAROLINA - Severe statewide, especially in drought-stricken areas. Lodging 80 percent at Hoke, Scotland County. (Hunt).

FALL ARMYWORM (Spodoptera frugiperda) - NORTH CAROLINA - Heavy damage continued to corn and sorghum in localized northern Coastal Plain and Piedmont fields. Damaged all plants in 5 southern Coastal Plain and 7 northern Coastal Plain fields. Pupation rapid. Counts decreased below injury levels in many fields. Feeding in stalks of drought-stunted corn in northern Wake County. (Miller et al.). TENNESSEE - Heavy damage to late-planted corn in Grundy County. (Chance).

SORGHUM WEBWORM (Celama sorghiella) - MISSISSIPPI - Larvae averaged 11.5 per grain sorghum head on up to 90 percent of heads of 30 acres grown for silage in Noxubee County. (Robinson). KANSAS - Larvae averaged 6 per sorghum head in Bourbon County field on 25 percent of heads; up to 23 larvae in individual heads. (Bell).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - KANSAS - Larvae taken in corn at Ingalls, Gray County, by R.E. Purdy August 20, 1975. Determined by D.E. Mock. Larvae collected from cornfield near Johnson, Stanton County, September 8. Collected and determined by M.L. Shuman. These are new county records. Fully grown larvae trace in some corn in Scott, Wichita, and Wallace Counties. (Bell).

CORN ROOTWORMS (Diabrotica spp.) - ILLINOIS - D. longicornis (northern corn rootworm) and D. virgifera (western corn rootworm) adult survey of corn in July and August indicated populations this year in northwest, northeast, west, central, and east districts heavier than past 5-year average. Averages of 2+ per plant in Bureau, Stephenson, and Woodford Counties and over one per plant in 7 other counties. Western corn rootworm comprised 43 percent of population. Only central district averaged more westerns (55 percent) than northerns (45 percent). (Ill. Ins. Rpt.). MINNESOTA - Still feeding on corn silk. Averaged 2 D. longicornis and 3 D. virgifera adults per sweet corn ear in Scott County field. Adults also fed on wild sunflowers and on alfalfa, 30-40 per 100 sweeps, in central district. (Minn. Pest Rpt.). SOUTH DAKOTA - D. longicornis adults heavy on small grain stubble, alfalfa, and corn. Much heavier than observed in previous years. (Walgenbach).

TURF, PASTURES, RANGELAND

A NOCTUID MOTH (Mocis latipes) - FLORIDA - Mostly this species of Mocis heavy in some fields of Coastal Bermuda grass. One 25-acre field required treatment, larvae 10 per square foot, near Williston, Levy County. (Fla. Coop. Sur.).

RANGELAND CATERPILLAR (Hemileuca oliviae) - COLORADO - Spinning up, averaged 5 cocoons per square yard on 2,000 acres at Branson, Los Animas County. (PPQ).

FORAGE LEGUMES

ALFALFA CATERPILLAR (Colias eurytheme) - CALIFORNIA - Returned in significant populations, especially in southern half of valley after 2 summers of light infestations on alfalfa. Many fields treated to reduce larval counts and decrease foliar damage. (Cal. Coop. Rpt.). COLORADO - Ranged 20-30 per 100 sweeps of alfalfa in Mesa County week of August 12. (Bulla).

SOYBEANS

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis) - ALABAMA - Heaviest ever on 1,300,000+ acres of soybeans statewide. Egg laying heavy. Leaf and pod feeding expected to be heavy in southern and central areas. First occurrence of heavy damage likely to isolated plantings in northern area. Economic damage and widespread control by September 12 in Autauga, Wilcox, Dallas, Russell, Mobile, Shelby, Marengo, Tuscaloosa, Hale, Greene, Monroe, and Clay Counties. (McQueen). MISSISSIPPI - Remained dominant lepidopterous defoliator on soybeans across State. Soybeans planted in late June and early July hardest hit by week of September 12. (Robinson).

GREEN CLOVERWORM (Plathypena scabra) - OKLAHOMA - Up to 4 per row foot in Wagoner, Muskogee, Haskell, Sequoyah, and Le Flore Counties. Decreased in past 14 days. (Okla. Coop. Sur.). MISSISSIPPI - Very heavy, 10 per row foot, in 50-acre soybean field in Walthall County week of September 12. Averaged 5.0 per row foot in Lincoln County. (Smith).

SOYBEAN LOOPER (Pseudoplusia includens) - ALABAMA - Larvae of this and other species damaged several thousand soybean acres in isolated fields statewide. Virus and fungus diseases prevented economic infestations in many fields. (McQueen).

NOCTUID MOTHS - MARYLAND - Estigmene acrea (saltmarsh caterpillar) and Epargyreus clarus (silverspotted skipper) larvae heavy on soybeans this season. Ranged 2-10 per linear foot of row in 30 percent of acreage on Eastern Shore week ending September 12. About 400 acres required controls. Defoliation ranged 10-40 percent. Damage levels in southern area ranged 1-10 percent. (U. Md., Ent. Dept.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - ALABAMA - Damaged many soybean fields in Mobile, Fayette, and Marshall Counties. (Vickery et al.). VIRGINIA - Noneconomic. Averages per 30 row feet by county: Northumberland and Lancaster 12.8 in 810 acres (34 fields), defoliation 5.9 percent; Charles City 0.3 in 815 acres (22 fields), average defoliation 4.4 percent. (Allen).

BEAN LEAF BEETLE (Cerotoma trifurcata) - OKLAHOMA - Up to 8 per row foot on soybeans in Wagoner, Muskogee, Haskell, Sequoyah, and Le Flore Counties. Defoliation averaged about one percent. Light in Garvin County. (Okla. Coop. Sur.).

SOUTHERN GREEN STINK BUG (Nezara viridula) - FLORIDA - One per foot of row in 50-acre soybean field in Levy County; required treatment. This species and Euschistus servus (brown stink bug) in ratio of 7:3 in economic numbers in 9 of 45 fields in Jackson County. (Fla. Coop. Sur.). ALABAMA - This species and E. servus economic in several thousand acres in Marengo County. Treatments applied. (Miller).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - OKLAHOMA - Girdled up to 15 percent of stalks in Haskell County soybeans. (Okla. Coop. Sur.). MISSISSIPPI - Adults and nymphs increased, heaviest in southern area. Averaged per 25 sweeps by county: Franklin 16.6 in 35 acres, Covington 15.3 in 30 acres, Coahoma 11.5 in 25 acres, and Sunflower 11 in 200 acres. (Robinson).

PEANUTS

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis) - ALABAMA - Larvae of this and other species on 200,000 acres of peanuts in southeast area. Threatened late-planted fields. Treatment applied to few thousand acres in Barbour, Covington, Coffee, Geneva, and Houston Counties. (Bond et al.).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - OKLAHOMA - Up to 87 percent of plants and 20 larvae per plant on untreated peanuts in Marshall County. Third-generation pupation underway. (Okla. Coop. Sur.).

COTTON

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Continued heavy in scattered cotton fields throughout Rolling Plains area. Moderate in San Angelo area. Light in Trans-Pecos area, moderate to heavy in some isolated fields. Migrated into uninfested fields. (Boring, et al.). OKLAHOMA - Punctured squares 15-25 percent in most, 50 percent in some, isolated fields in Jackson, Tillman, Harmon, Greer, Kiowa, and Grady Counties. (Okla. Coop. Sur.). MISSISSIPPI - Adults punctured 50-100 percent of squares in green cotton week of September 12. Important where heavy enough to attack small bolls that may be harvested. (Robinson). ALABAMA - Emergence, feeding, and egg laying still heavy and damaging statewide except on "matured cut-out" cotton. Recent rains brought on second growth with renewed squaring, blooms, and bolls with weevils heavy in fields. Punctured half of bolls 50-75 percent grown in Lee and Montgomery Counties. Boll rot excessive in many areas. (McQueen).

BOLLWORMS (Heliothis spp.) - TEXAS - Heliothis zea (bollworm) damage continued to decrease on cotton in Rolling Plains area. Activity increased in Trans-Pecos area. Moderate in San Angelo area. Heavy in green spots in south-central area. H. virescens (tobacco budworm) activity increased in isolated fields in Trans-Pecos area. (Neeb et al.). OKLAHOMA - Heliothis spp. 0-7 per 100 terminals in most, up to 25 per 100 terminals in some, fields. Larvae 0-4 per 100 terminals in most, up to 15 per 100 terminals in some, southwest county fields. Damaged squares averaged 23 percent in Grady County. (Okla. Coop. Sur.). ARKANSAS - Percent H. virescens by county: Desha 81 (September 5-11), Drew 82 (September 5), Jefferson 99-100 (September 8-9). H. zea comprised remainder. Plot near Marvell, Phillips County, had one H. zea and 32 H. virescens. Tobacco budworm heavy due in part to insecticide selection. (Boyer).

MISSISSIPPI - Cotton rapidly "cutting out" week of September 12. Heliothis eggs and larvae continued to infest greener cotton. Eggs on 0-100 percent of terminals. Larvae on 1-15 percent of squares and bolls. (Robinson). ALABAMA - H. virescens and H. zea flights heavy in State past 10-15 days. Egg laying and larvae serious in thousands of acres by September 12 in Fayette, Colbert, Marshall, Limestone, Morgan, Shelby, Etowah, Marengo, Tuscaloosa, Greene, Elmore, Lee, Russell, and Barbour Counties. H. virescens counts twice that of H. zea in Lee County. (McQueen).

DECIDUOUS FRUITS AND NUTS

CODLING MOTH (Laspeyresia pomonella) - NEW MEXICO - Moth averages per pheromone trap 10.5 in Bernalillo County, ranged 0.4-3.3 per trap in Los Alamos, Otero, Rio Arriba, Sandoval, San Juan, Santa Fe, and Valencia Counties. (N.M. Coop. Rpt.). WASHINGTON - Pheromone trap catch at Pullman week ending September 13 ranged 0-18 (mean 3.5) for 6 traps. (Jackson).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - NEW MEXICO - Several active colonies on apple trees at Bloomfield, San Juan County. (N.M. Coop. Rpt.).

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - OHIO - On ornamental plum, uncommon in this State. Recorded only from Prunus and Syringa. (Roach).

A SCOLYTID BEETLE (Xylosandrus germanus) - INDIANA - Infested 30-40 percent of 7,000 thirty-inch black walnut trees (Juglans nigra) on plantation in Fountain County. Collected by L. Schuder June 26, 1975. Determined by D.M. Anderson. This is a new county record. Previously collected in Jefferson and Dubois Counties. (Meyer).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Continued problem on pecans in parts of Rolling Plains area. Light to heavy in San Angelo area. Webs heavy in Trans-Pecos area. (McWhorter et al.).

WALNUT HUSK FLY (Rhagoletis completa) - UTAH - Infested black walnuts at Harrisville, Weber County. (Knolwton). OREGON - Emergence in walnut orchards in Dundee area of Yamhill County decreased markedly since first week of September. First husk damage by larvae September 14, about same date as in 1974. (Larson).

BLACK PECAN APHID (Tinocallis caryaefoliae) - ALABAMA - This species and Monellia spp. (yellow pecan aphids) very heavy. Damaged thousands of pecan trees in Lee, Montgomery, Autauga, and Covington Counties. (Linder et al.). TEXAS - Continued to infest pecans in Rolling Plains area. Heavy in San Angelo area. Light in Trans-Pecos area. (Boring et al.).

ORNAMENTALS

A PRODOXID MOTH (Tegeticula yuccasella) - SOUTH CAROLINA - Collected from yucca in Lexington County by A. Screen August 12, 1975. Determined by D.K. Pollet. This is a new county record. (McCaskill).

AZALEA CATERPILLAR (Datana major) - SOUTH CAROLINA - Collected from azalea in Hampton County by H. S. Moore September 8, 1975. Determined by R. Griffin. This is a new county record. (McCaskill).

FOREST AND SHADE TREES

A GALL MIDGE (Taxodiomyia cupressiananassa) - INDIANA - Collected from baldcypress (Taxodium distichum) at Brazil, Clay County, by A. Altekruse September 15, 1975. Determined by J.O. Sillings. This is a new county record. (Meyer).

REDHEADED PINE SAWFLY (Neodiprion lecontei) - WEST VIRGINIA - Larvae defoliated about 30 percent of 100 red pines and 20-50 Virginia pines in Nicholas County. (Coffman).

PINE NEEDLE SCALE (Chionaspis pinifoliae) - UTAH - Severely infested some pines at Randolph, Rich County; needle drop heavy. (Wamsley).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - OREGON - Attractant trap data by county August 12 to September 28: Malheur (Ontario) 1,133, (Nyssa) 18,046; Crook (Prineville) 2,814; Deschutes (Redmond) 503, Jefferson 755. Single traps at each location. (Penrose).

MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 872 cases reported from continental U.S. during August 31 to September 6 as follows: Texas 820, Oklahoma 5 (first incidence), New Mexico 14, Arizona 33. Total of 243 cases confirmed in portion of Barrier Zone in Republic of Mexico. None reported in Mexico south of Barrier Zone. Number of sterile flies released this period totaled 200,421,000 as follows: Texas 171,360,000; New Mexico 6,676,200; Arizona 22,384,800. Total of 2,415,267,000 sterile flies released within Barrier of Mexico and 20,000,000 released south of Barrier. (Vet. Serv.).

HORN FLY (Haematobia irritans) - FLORIDA - Averaged 590 per beef animal in herd at Gainesville, Alachua County. (Fla. Coop. Sur.). MISSISSIPPI - Adults averaged 200+ on 50 head of Noxubee County beef cattle. (Robinson). KENTUCKY - Adults averaged 75.5 on cows and 47 on calves in Bourbon County. (Barnett, Moneyham). OKLAHOMA - Averaged 350 per head on Payne County cattle and ranged 200-300 per head in Jackson and Tillman Counties. Moderate in Comanche County. (Okla. Coop. Sur.). TEXAS - Heavy on cattle in Trans-Pecos area. Moderate in San Angelo area. (Neeb, McWhorter).

FACE FLY (Musca autumnalis) - ARKANSAS - Collected on cattle from farm near Osceola, Mississippi County, August 27, 1975, by T. Stevenson. Determined by E.P. Rouse. This is a new county record. (Boyer). KENTUCKY - Adults averaged 8.1 on cows and 10.1 on calves in Bourbon County. (Barnett, Moneyham).

MOSQUITOES - KENTUCKY - Problem in Pulaski County. (Barnett, Hurst). ARKANSAS - Aedes aegypti (yellowfever mosquito) adults and larvae collected near Norman, Montgomery County, by M. Love August 28. Determined by M. Meisch. First report of this species in State since 1965. (Boyer). TEXAS - Heavy in almost every south-central county. (Cole).

WESTERN BLACK WIDOW SPIDER (Latrodectus hesperus) - TEXAS - Numerous in homes, garages, and other buildings in Canyon and Owyhee Counties. (Baird).

HOUSEHOLDS AND STRUCTURES

CASEMAKING CLOTHES MOTH (Tinea pellionella) - SOUTH CAROLINA - Collected at residence in York County by C.H. Fant September 8, 1975. Determined by J.B. Kissam. This is a new county record. (McCaskill).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

GRASSHOPPERS - NEW MEXICO - Up to 30 per square yard damaged scattered range areas of McKinley and San Juan Counties. Melanoplus occidentalis predominant. (N.M. Coop. Rpt.). OKLAHOMA - Adult surveys in August showed 1,075,000 acres of rangeland economically infested (8 or more per square yard) in the Panhandle, northwest, west-central, east-central, southwest, south-central, and southeast areas. Dominant species Ageneotettix deorum, Drepanopterna femoratum, Amphitornus coloradus, Boopedon nubilum, Mermiria maculipennis, Melanoplus occidentalis, M. bivittatus, M. packardii, Phlibostroma quadrimaculatum, and Hesperotettix speciosus. (Okla. Coop. Sur.).

MORMON CRICKET (Anabrus simplex) - COLORADO - Egg laying active on 5,000 acres, eggs up to 50 per square foot, on Dinosaur National Monument, Moffat County, week of September 12. (PPQ). MONTANA - Reported in several high mountainous areas including Gallatin River in Gallatin County, Boulder River in Sweetgrass County, Jefferson, Lewis and Clark, Powell, Missoula, and Powder River Counties week of September 12. (Pratt).

ORIENTAL FRUIT FLY (Dacus dorsalis) - CALIFORNIA - Second male adult trapped September 11, 1975, in same general area first fly trapped at National City, San Diego County. To date, no other flies trapped and no larval infestations found. (Cal. Coop. Rpt.).

WESTERN GRAPELEAF SKELETONIZER (Harrisina brillians) - CALIFORNIA - Larvae taken from grapevines at Palo Cedro, Shasta County, September 10, 1975, by J. Weber and R. Gripp. Determined by T. Seeno. This is a new county record. (Cal. Coop. Rpt.).

DETECTION

New County Records - AZALEA CATERPILLAR (Datana major) SOUTH CAROLINA - Hampton (p. 783). CASEMAKING CLOTHES MOTH (Tinea pellionella) SOUTH CAROLINA - York (p. 784). FACE FLY (Musca autumnalis) ARKANSAS - Mississippi (p. 784). A GALL MIDGE (Taxodiomyia cupressiananassa) INDIANA - Clay (p. 783). A PRODOXID MOTH (Tegeticula yuccasella) SOUTH CAROLINA - Lexington (p. 783). A SCOLYTID BEETLE (Xylosandrus germanus) INDIANA - Fountain (p. 783). WESTERN BEAN CUTWORM (Loxagrotis albicosta) KANSAS - Gray, Stanton (p. 780). WESTERN GRAPELEAF SKELETONIZER (Harrisina brillians) CALIFORNIA - Shasta (p. 785).

General Vegetables - LEAFMINER FLIES (Liriomyza spp.) damage heavy at Waimanalo, Oahu, in 0.5 acre of cucumbers and one acre of snap beans. Hundred or more leafminers on most infested cucumber leaves and 15+ mines on each bean leaf. Adults light. (Mau).

Fruits and Ornamentals - ORANGE SPINY WHITEFLY (Aleurocanthus spiniferus) immatures light, 1-25 per leaflet, on few rose plants at Alewa Heights, Oahu. Farthest west (about 5 miles) from original site of discovery. Detection surveys in late July indicated spread as far as Pauoa Valley. (Onzuka et al.).

Miscellaneous Pests - Large numbers of a MILLIPED (Trigoniulus lumbricinus) in backyards at Kailua Kona, Hawaii Island, caused much annoyance to residents and hotel guests. (Yoshioka).

Beneficial Insects - A GALL FLY (Procecidochares alani) firmly established in roadside pamakani stands at Round Top and Tantalus, Oahu. Galls detected at all roadside areas surveyed; many galls found even at 1,500-feet elevation. Heavy galling continued at Nuuanu; Eurytoma tephritidis (a eurytomid wasp) found parasitizing the gall fly. Many parasites flying among galls. Parasite identified by G. Funasaki. (Mau). SOUTH AFRICAN EMEX WEEVIL (Apion antiquum) adults and larvae readily detected on small number of Emex spinosa at Waimea, Hawaii Island. Only few Emex plants in survey area. (Yoshioka).

LIGHT TRAP COLLECTIONS

	Temperature °F.	Precipitation (inches)	Type of trap	Agrotis ipsilon (black cutworm)	Ellisgene gerra (eastern cutworm)	Euxoa auxiliaris (army cutworm)	Peridroma diffusa (variegated fall cutworm)	Feltia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laphygma frugiperda (fall armyworm)	Loxostege commixtalis (alfalfa webworm)	Loxostege pariatis (green webworm)	Loxostege sticticalis (beet webworm)	Mandura quinquemaculata (tomato hornworm)	Manduca sexta (tobacco hornworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera praefica (western yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
CALIFORNIA																								
Bellota 9/10	57-82		BL	4						1									35	202			1	
Clements 9/9	59-90		BL	1				1											16	196			1	
FLORIDA																								
Gainesville 9/12-18			BL		3			10	1	2									3	7	24	8		
KANSAS																								
Garden City 9/8, 10, 14, 17			BL	24		17	19			348							42	24	160		3	16		
Goodland 9/3, 5			BL	3		79				45							1	6	51					
KENTUCKY (County)																								
Fayette 9/18-19			BL																1				1	
MAINE																								
South Berwick 9/12			BL																1					
MISSISSIPPI																								
Stoneville 9/12-18	50-90	.45	2BL	10	12			2	140	59					2			2	37	142	84	40	6909	
NORTH DAKOTA																								
Bismarck 9/9			BL																2					
Mountain 9/6, 9			BL	1									3						68					
OHIO																								
Wooster 9/13-19			3BL							10							16	16	15		95	6		
PENNSYLVANIA (Districts)																								
Central 9/11-17			3BL	1													1		3		9			
Southeast 9/11-17			7BL							1									10					
VIRGINIA																								
Blacksburg 9/12-18			BL	10						10					1	3		1	37		23			
WISCONSIN																								
Antigo 9/9-15			BL	4													3	61	258					
Mazomanie 9/11-18			BL	2						3							15	4	21		15			

Weather of the week continued from page 778.

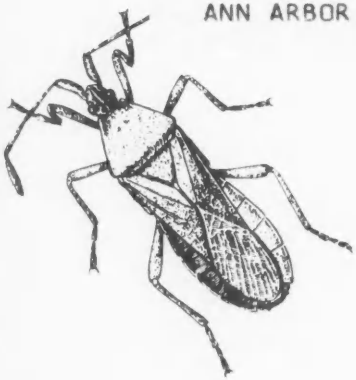
The nighttime mercury edged upward from the 50's into the 60's across the central Plains and Great Lakes into the Middle Atlantic States. Though northern New England warmed also, a few 40's dubbed it the Nation's cool spot. A new cool air mass moving through the Pacific Northwest and northern Rockies foretold a cooling trend for portions of the Plains States. It deposited rains in the mountains and some snow at higher elevations. Showers and thunderstorms were scattered over most of the Mississippi and Lower Ohio Valleys and southward over the southeast quarter of the U.S. Meantime, fair skies favored most of New England and the central and southern Plains into the Rockies. As Thursday morning's cold air mass continued its eastward push into the Mississippi Valley, temperatures slipped into the 20's and 30's in the northern Mountain States. Some locally significant showers broke out ahead of and along the front in the northern and central Plains. Throughout much of the day, showers and thundershowers persisted in the north-central and eastern portions of the Nation, but rainfall amounts were fairly light.

Precipitation picked up on Friday. In the south-central Plains, torrential rains soaked northeast Oklahoma, southeast Missouri, and northwest Arkansas. Northeast of Tulsa, Oklahoma, 8.56 inches fell in only 5 hours. In the afternoon, sunny western skies let temperatures soar and even pushed the mercury in Seattle, Washington, to a record 81 degrees. In contrast, the rest of the Nation enjoyed mild or cool temperatures. In the wake of a cold front, evening showers and thundershowers sprang up from Texas to the Ohio Valley. Showers were scattered along the Upper Great Lakes and along both Atlantic and gulf coasts. In the central Atlantic, a new tropical storm, Faye, posed little immediate threat. Except for coastal areas, fair weather prevailed on Saturday from the Pacific into the western portions of the Great Plains and across Kansas and Oklahoma into southern Missouri and Arkansas. Associated with the cold front, a band of showers and thundershowers developed from the Lower Mississippi Valley into the Appalachians. During the day, showers and thundershowers diminished along the front from New York into southern Louisiana but gained momentum in southern and central Texas, Florida, southern Georgia, and southeast South Carolina. In the Gulf of Mexico, tropical storm Eloise continued to move slowly westward amid conditions favorable for strengthening. Trapped by a high pressure system, unseasonably warm weather still held firm in the Pacific Northwest on Sunday. The rest of the Nation except for the Desert Southwest and Atlantic coast reported cooler than normal daytime readings. In northern Minnesota and Upper Michigan, the mercury halted in the 40's. Afternoon shower activity increased over much of the Atlantic and gulf coasts into the southern Plains, and gray skies drizzled rains in parts of the Upper Great Lakes region and in northwest Texas.

U.S. DEPARTMENT OF AGRICULTURE
HYATTSVILLE, MARYLAND 20782

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101

U.S.MAIL

0004 XEUNMI300A122 34037 0001
XEROX UNIV MICROFILMS SERIALS
DEPT
300 N ZEEB RD
ANN ARBOR MI 48106